

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/14507

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/415 A61K38/16 A61K39/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

BIOSIS, EPO-Internal, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>VALENTA RUDOLF ET AL: "Recombinant allergen molecules: Tools to study effector cell activation." IMMUNOLOGICAL REVIEWS, vol. 179, February 2001 (2001-02), pages 119-127, XP002242170 ISSN: 0105-2896 page 124, right-hand column, line 23 -page 125, right-hand column, line 29; figure 3; table 1</p> <p style="text-align: center;">--- -/--</p>	1-5

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

30 March 2004

Date of mailing of the international search report

06/04/2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>FREIDHOFF L R ET AL: "A STUDY OF THE HUMAN IMMUNE RESPONSE TO LOLIUM PERENNE (RYE) POLLEN AND ITS COMPONENTS, LOL P I AND LOL P II (RYE I AND RYE II). I. PREVALENCE OF REACTIVITY TO THE ALLERGENS AND CORRELATIONS AMONG SKIN TEST, IGE ANTIBODY, AND IGG ANTIBODY DATA" JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, MOSBY - YEARLY BOOK, INC, US, vol. 78, 1 July 1986 (1986-07-01), pages 1190-1201, XP002053587 ISSN: 0091-6749 cited in the application</p>	
A	<p>HAGE-HAMSTEN VAN M ET AL: "SKIN TEST EVALUATION OF GENETICALLY ENGINEERED HYPOALLERGENIC DERIVATIVES OF THE MAJOR BIRCH POLLEN ALLERGEN, BET V 1: RESULTS OBTAINED WITH A MIX OF TWO RECOMBINANT BET V 1 FRAGMENTS AND RECOMBINANT BET V 1 TRIMER IN A SWEDISH POPULATION BEFORE THE BIRCHPOLLEN SEASON" JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, MOSBY - YEARLY BOOK, INC, US, vol. 104, no. 5, November 1999 (1999-11), pages 969-977, XP001022679 ISSN: 0091-6749</p>	
A	<p>VRTALA S ET AL: "Conversion of the major birch pollen allergen, bet v 1, into two nonanaphylactic T cell epitope-containing fragments: Candidates for a novel form of specific immunotherapy" JOURNAL OF CLINICAL INVESTIGATION, NEW YORK, NY, US, vol. 99, no. 7, 1997, pages 1673-1681, XP002221492 ISSN: 0021-9738</p>	
A	<p>DE MARINO S ET AL: "An immunoglobulin-like fold in a major plant allergen: The solution structure of Phl p 2 from timothy grass pollen." STRUCTURE (LONDON), vol. 7, no. 8, 15 August 1999 (1999-08-15), pages 943-952, XP002242174 ISSN: 0969-2126 cited in the application</p>	

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Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 9-14 partially
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/14507

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9423035	A	13-10-1994	AT 401937 B	27-12-1996
			AT 67293 A	15-05-1996
			WO 9423035 A2	13-10-1994
			AT 171725 T	15-10-1998
			AU 684269 B2	11-12-1997
			AU 6276894 A	24-10-1994
			CA 2136973 A1	13-10-1994
			DE 59406999 D1	05-11-1998
			DK 643769 T3	21-06-1999
			EP 0643769 A1	22-03-1995
			ES 2124878 T3	16-02-1999
			FI 945648 A	25-01-1995
			JP 8500492 T	23-01-1996
			NO 944634 A	23-01-1995
			SI 643769 T1	30-04-1999
EP 1221317	A	10-07-2002	EP 1221317 A1	10-07-2002
			EP 1219301 A1	03-07-2002
			US 2002173625 A1	21-11-2002